STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Water Quality Control Division

General Permit for Stormwater Discharges Associated with Non-Extractive Industrial Activity (COG-900000)

Frequently Asked Questions
August 7, 2012

The following questions and answers are provided to aid in a general understanding of the permitting process for stormwater discharges associated with non-extractive industrial activities. This Question and Answer document has been developed to provide Division guidance on specific questions provided by permittees. The Division intends to expand and refine this document in the future, and also provide additional guidance materials such as templates etc. Specifically, the Division is in the process of developing a guidance document addressing development and implementation of a Stormwater Management Plan that will be distributed and published on the Division web page by October 31, 2012. In addition, the following resources are available from the EPA and other states:

- Colorado Water Quality Control Division Permitting Website
  - http://www.coloradowaterpermits.com
- EPA Guidance for Industrial Stormwater
  - General Industrial Stormwater Guidance
    http://cfpub.epa.gov/npdes/stormwater/indust.cfm
  - EPA Industry Sector Specific Resources
    http://www.epa.gov/compliance/assistance/sectors/index.html
    - Ready Mixed Concrete, Crushed Stone and Sand and Gravel Industrial Stormwater Compliance Resources
      http://www.epa.gov/compliance/assistance/sectors/readymix-aggregate.html
- Sampling Guidance
  - Industrial Stormwater Monitoring and Sampling Guide – EPA
    http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf
  - YouTube Video Instructions on Gathering Stormwater Samples - Produced by Minnesota Pollution Control Agency
    - How to Collect an Industrial Stormwater GRAB Sample - 4:13 min long video describing and demonstrating how to collect a GRAB Sample
      http://www.youtube.com/watch?v=oWKdonc9iDw&feature=youtu.be
    - How to Collect an Industrial Stormwater Sheet Flow Sample - 5:47 min long video describing and demonstrating how to collect a Sheet
      http://www.youtube.com/watch?v=AmEJUNp44aU&feature=youtu.be
    - Flow Sample How to Identify and Confirm Benchmark Monitoring Locations - 8:20 min long video describing and demonstrating how to determine Benchmark Sampling Locations
      http://www.youtube.com/watch?v=dOPYtpZL-bg

Q1. How does the Permittee address storm event monitoring and inspection requirements if there is no measurable storm event, i.e., no event that that results in an actual discharge from the facility, within the monitoring or inspection period? Also, if a company does not discharge stormwater but elects not to opt out with No Exposure Certification or the Termination Application, what will be the monitoring requirements (visual, benchmark, etc, as applicable) if there are no stormwater discharges?

If no discharge occurs during the reporting period (the calendar quarter for quarterly monitoring, or the calendar year for annual monitoring), "No Discharge" shall be reported on the Discharge Monitoring Report, as addressed in Part I.K.1 of the Permit and no monitoring needs to be conducted. The same should be documented in the Stormwater Management Plan and annual report for the required quarterly visual inspection and the requirement to conduct one annual site inspection during a measurable storm event.

The above also applies to a facility that is designed not to discharge stormwater associated with industrial activity but elects to not opt out of permit coverage. As long as the site is not discharging it can continue to document "No Discharge" on Discharge Monitoring Reports, the Stormwater Management Plan, and the annual report.

Q2. If a small amount of stormwater runoff discharges off a facilities drive entrance into a barrow ditch adjacent to county road or curb/ gutter adjacent to city road, would that be considered a discharge requiring a permit or qualify as a "measurable storm event." Is there a quantity of discharge that would not be considered significant enough to trigger requirements?

The discharge would have to be a "stormwater discharge associated with industrial activity," as defined in Appendix C of the Permit: *"For the categories of industries identified in this permit, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. See 5 CCR 1002-61.3(2)(e)."*

If the discharge is not "stormwater discharge associated with industrial activity," then it would not be a discharge requiring a permit or monitoring in accordance with a permit.

If the discharge is "stormwater discharge associated with industrial activity," and leaves the facility, in most cases a permit would be required, and compliance with the conditions of the permit, including monitoring, would be required for the discharge, regardless of the magnitude or where the discharge was to. Even if the discharge was not directly to a storm sewer or surface water (e.g., stream, lake, wetlands, etc), in almost all cases, a discharge of stormwater runoff that leaves a facility would be to a location where waters of the state were present, including flows in a barrow ditch or curb/ gutter adjacent to city road. Once the discharge has left the facility, the pollutants potentially present in that discharge would be expected to further migrate until a discharge to surface water with beneficial uses occurred.

If there is a discharge, but the flow of runoff is insufficient volume to allow for sample collection, the event is still a "measurable storm event" and the permittee cannot record "No Discharge" on a DMR for the monitoring period. Part 1.H.4 of the permit defines measurable storm event as a storm event that results in an actual discharge from the facility. If no other measurable storm events occur during the monitoring period, the permittee should submit an explanation with the Discharge Monitoring Report explaining why a sample could not be collected and analysis conducted for the discharge. Refer to links at the beginning of this document for guidance on sampling, including sampling sheet flow.

Q3. What if there is a Division or EPA compliance oversight inspection and the Stormwater Management Plan is in the mail between plant and corporate office for signature of the legally responsible person?

In general, the Stormwater Management Plan should be updated prior to modification in the field, including obtaining the required signature prior to the new plan becoming effective. If circumstances do not allow adequate time for this to occur and the legally responsible person is at a different location, the permittee should make a copy of the document to be kept on site while the original is in the mail.

The Division also suggests that, if possible, a permittee should assign a duly authorized representative that is on site and can do the signing for Discharge Monitoring Reports, inspections, and the Stormwater Management Plan. The "Change of Contact Form," available on the Division web page can be used to complete this action. The criteria in the permit for a duly authorized representative is that the individual or position have:
"responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position)."

Q3. What happens if an inspection is made in the last few weeks of the quarter and the next and only measurable storm event occurs on the next quarter but within 20-day of the previous inspection?

The permit requires that one inspection be conducted annually during or within 24 hours after the end of a measureable storm event. The permit also requires that inspections be conducted at least 20-days apart. Because three of the four inspection can be conducted anytime during a calendar quarter, the Division recommends avoiding waiting until the end of a quarter to conduct those inspections to reduce the potential for inspections being conducted within 20-days if a measurable storm event occurs early in the next quarter and must be inspected to meet the once-annual inspection requirements. Note that the facility can also choose to conduct more than one inspection during the quarter in order to meet the permit requirements. For example if they have already conducted one inspection for the quarter they can elect to conduct a second when a qualifying storm event occurs.

If there is no measurable storm event for the year, the facility will document a "no discharge" finding and document this condition in the Stormwater Management Plan and annual report. If the inspection frequency is less than 20 days apart, this will need to be documented in the Stormwater Management Plan and annual report along with the reason for the overlap.

Q5. What level of detail needs to be included in the Stormwater Management Plan to meet the requirement to provide an inspection schedule? Is "once per quarter" enough detail?

For the inspection documentation requirements in the Stormwater Management Plan involving the inspection schedule, having a once per quarter statement is adequate unless the facility is located in an area with "irregular stormwater runoff discharges," as addressed in Question 6, below. However, the Division recommends that an actual schedule is provided in the Stormwater Management Plan and that this schedule reflects a work schedule. Note that the Stormwater Management Plan is intended as a tool to assist the permittee in meeting permit requirements by documenting and internally communicating processes. Providing additional detail may assist the permittee's staff.

Q6. The inspection procedures and documentation requirements for the Stormwater Management Plan require the documentation of "schedules for conducting inspections, including tentative schedule for facilities in climates with irregular stormwater runoff discharges." What is meant by the statement "tentative schedule for facilities in climates with irregular stormwater runoff discharges?"

If a facility is located in an area where limited rainfall occurs during parts of the year, or in areas where freezing conditions exist that prevent runoff from occurring for extended periods, it may be challenging to conduct the required annual inspection during a measurable storm event that results in runoff. Therefore, the Stormwater Management Plan for such facilities should provide a tentative schedule that identify the period(s) for which the permittee will target the completion of the one annual inspection during the measurable storm event. Including this information in the Stormwater Management Plan is required to reduce the potential for permittees to fail to conduct the annual inspection during a runoff event during the period when such events are likely. Note that the documented schedule is only tentative and therefore may be deviated from based on actual storm events that occur, and other relevant factors.

Note that in addition, in accordance with Part I.H.11 of the permit, for facilities with irregular stormwater runoff the required monitoring events may be distributed during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from the facility. The revised monitoring schedule must be maintained in the Stormwater Management Plan. See question 13.

Q7. How detailed are the requirements for documentation procedures listed throughout the permit?

The items that need to be documented are identified in the permit, and the format of the documentation can be handwritten or electronic. The Division suggests following the documentation requirements outlined in the permit for a specific permit requirement. **The Division is in the process of developing a guidance document that covers the documentation requirements for the Stormwater Management Plan that will provide more specific guidance for individual requirements in the permit. This document will be distributed and published on the Division web page by October 31, 2012.**

The intent of these documentation requirements is to drive or formulate action and procedures. For example, documenting maintenance procedures will help ensure that the maintenance activities occur as necessary to maintain proper operation, and that changes in personal would not result in undocumented practices being forgotten.

There should be enough detail contained in the documentation to drive or conduct the required work or actions. For example, creating desktop procedures and standard operating procedures.

Q8. The permit asks for documentation procedures for Spill Prevention and Response. If a separate Spill Prevention Control and Countermeasure (SPCC) plan is referenced, which is allowed in the permit, what needs to be documented for procedures required by the permit but not required by the SPCC plan?

The permit requires that a permittee document ALL Spill Prevention and Response Procedures required by Part I.D.1.d of the Permit. The permit allows for a permittee to reference a separate SPCC plan to meet the requirements for documenting the required Spill Prevention and Response Procedures in the permit. However, if the referenced SPCC plan does not contain all Spill Prevention and Response Procedures required by Part I.D.1.d of the Permit, the Stormwater Management Plan must include those additional procedures.

The intent of the Spill Prevention and Response Procedures required in the permit is to minimize the potential for any leaks, spills, and other releases that may be exposed to stormwater and typically SPCCs are designed for spills of a larger size. A permittee must verify that the referenced SPCC meets the intent to minimize spills of all sizes and quantities. The Division also suggests documenting a crosswalk in the Stormwater Management Plan to the SPCC sections that meet the requirements of the permit. The existing SPCCs are often very large documents and cumbersome to review.

Q9. What information should be provided in training for spill prevention employees?

The Spill Prevention and Response Procedures section of the permit requires procedures for inspecting, testing, maintaining, repairing all industrial equipment and systems, along with implementing procedures for stopping, containing, and cleaning up leaks, spills and other releases. The procdures developed by the permittee in response to this section of the permit are a great outline for training employees.

Q10. Part I.D.1.d(iv) requires that a permittee "have necessary spill response equipment available." What is meant by "necessary spill response equipment?"

"Necessary spill equipment" is the equipment required for stopping, containing, and cleaning up leaks, spills, and other releases that may occur at the facility. The type of equipment will vary depending on the quality and nature of materials that could potentially spill at a facility. Examples include dry clean up absorbents, absorbent socks, materials to block storm sewer inlets, etc.

Q11. Part I.D.1.d(iv) requires procedures for labeling (as it pertains to spill prevention). What is required to meet these requirements?

Procedures for labeling include how the permittee evaluates what comes into the facility, what needs to be labeled, who is responsible to label, and how the material is labeled. Labeling is necessary to the extent needed to encourage proper handling and facilitate rapid response if spills or leaks occur. For example, the responder will need to know if health and safety risks exist for a spilled material so they know what procedures to follow when responding.

Q12. Why is there an increase to five types of monitoring from one type of monitoring compared to the old permit which was based on Effluent Limitations Guidelines Monitoring only?

The pre-existing industrial stormwater permits had not been significantly modified since 1992 (almost 20-years) and there was a significant amount of new information available since that time that led the Division to determine that a comprehensive review of the requirements was appropriate The approach taken in this permit is primarily from the EPA (including using the 2008 Multi Sector General Permit (MSGP) and some other state's industrial stormwater permits as a model) to address the pollutant potential of industrial stormwater discharges, and conduct the mission of the Division of protecting water quality. The facilities permit certification will outline the required monitoring and sampling requirements. Note that not every facility is required to conduct all five types of monitoring. Monitoring requirements are identified in the permit certification.

Q13. The "revised monitoring schedule" required to accommodate our climate with irregular stormwater runoff, will become a moving target. What is the purpose of continually maintaining such a schedule in the Stormwater Management Plan? How detailed does this schedule need to be?

The revised monitoring schedule is an option not a requirement. If the facility does not have a discharge, they can report "no discharge" on the Discharge Monitoring Reports and document this condition in their Stormwater Management Plan. The intent of the quarterly sampling requirement is to obtain one sample from each season in order to assess the discharges in relation to fluctuating seasonal conditions. After four compliant samples, the sampling frequency is reduced to one time a year. In an extreme case, e.g., in areas where a "measurable storm event" only occurs in the spring, the permittee may need to sample for 4 years to get the four samples required for averaging purposes. In such cases, COR900000 also provides the permittee the opportunity to identify an alternate sampling schedule if they chose to do so (see response to question 6).

Q14. Is monitoring required when the plant is closed? What is the recommended procedure for monitoring when the closest employee is 14-20 miles away and the plant is closed for the weekend, holiday, etc? For monitoring at inactive sites, how does an operator know that it is raining at a site that is 50 to 60 miles away from the closest plant that is operating?

Part I.G.4 and I.H.13 of the permit includes exceptions for inspection and monitoring for Inactive and Unstaffed Sites that meet the condition of no exposure. Sites not meeting these exceptions are required to monitor and conduct inspection, even if closed.

The permit specifies that a minimum of one grab sample must be taken from a measurable storm event being monitored. The grab sample must be taken during the first 30 minutes of the discharge, except for snowmelt monitoring which has no 30-minute requirement. The permit further indicates that if the collection of a grab sample during the first 30 minutes of the discharge is impractical, a grab sample can be taken as soon as practicable after the first 30 minutes of the discharge, but the permittee must document and keep with the Stormwater Management Plan an explanation of why a grab sample during the first 30 minutes of the discharge was impractical. The permit does not require an automated sampler but this may be a solution for a facility that is not easily accessible.

The Division recommends obtaining samples as early in the monitoring period as possible to increase the likelihood of obtaining samples during a storm event when staff is available. The Division does

recognize the challenge in obtaining samples at locations with limited staffing. The above discussed flexibility in obtaining samples following the initial 30-minutes of the discharge is partially intended to assist in this effort. Other recommended strategies include targeting more predictable snow melt events and when seasonally applicable, targeting monsoon or seasonally more likely rain showers, and using publicly available resources for storm tracking (e.g., weather radar).

For sites that are closed, the Division recommends a permittee consider removing industrial activities and materials if possible so that permit coverage can be terminated. If there are no industrial materials or activities at the site, the permittee may terminate permit coverage in accordance with I.A.4 of the permit. The permittee will need to submit a Termination Form to the Water Quality Control Division. This form can be found on the Division's website at www.coloradowaterpermits.com.

Q15. If a permittee chooses to use flow meters for providing discharge information, provide some guidance on pulling discharge meters in the winter.
The existing permit does not require flow meters or automated sampling devices, and the permittee can determine how they intend to collect samples and identify when a discharge occurs from the facility. If a permittee decides to use an automated sampler, sampling equipment maintenance will vary, but manufacturer's recommendations are typically provided and should be followed. During periods when automated samplers and flow meters cannot function at a specific site due to weather conditions, the permittee must use other methods, such as manual sampling and observation, to meet any applicable permit requirements.

Q16.What are the applicable permit fees and dollar ranges for potential fines.

Permit fees are in state statute as per section 25-6-502 of the Colorado Water Quality Control Act. Since July 1, 2007, the fee for facilities under the COR900000 permit is $185, and is subject to change.

Section 25-8-608 of the Colorado Water Quality Control Act provides for civil penalties of up to $10,000 per day for violations of the Act, any permits issued pursuant to the Act which includes the COR900000 general permit, or any final cease and desist order. Actual penalties are based on several factors. Refer to Water Quality Control Division's website for Water Quality Enforcement Actions and to review the penalty policies with more information on how the Division determines appropriate penalties: Enforcement Actions, Policies and Guidance :
http://www.colorado.gov/cs/Satellite/CDPHE-WQ/CBON/1251596872628

Q17. Define the following:

Storm event: The permit defines a measurable storm event as a storm event that results in an actual discharge from the facility. A storm event is simply a precipitation occurrence, including rain and snow. The permit includes additional information on how various requirements apply associated with both snow and rain events.

Qualified Person: A qualified is someone who is familiar and has been trained in stormwater as necessary to be able to perform the activities required by the permit. They should have the ability to understand and make decisions based on the inspection scope and permit requirements.

The term "vicinity as appropriate," as used in the Stormwater Management Plan facility map requirements: The Stormwater Management Plan facility map requirements (Part I.F.3 of the permit)

require that the map show the facility "vicinity as appropriate." This phrase is included in the permit to clarify that the vicinity of the facility may need to be included in the map if necessary to identify all required information listed in Part I.F.3. For example, the locations of stormwater outfalls, stormwater conveyances, or when showing the receiving waters. These features may be located outside the project boundary and require the inclusion of a larger map inorder for their location in relation to the facility to be depicted

The term "significant quantities of pollutant," as used in the Stormwater Management Plan facility map requirements: There is no specific quantity or concentration that would define "significant quantities of pollutants." This is determined on a case-by-case basis and defined in the field. The quantity of pollutants would be "significant" if they are significant to the other terms and conditions of the permit and the permittees implementation of its program to comply with the permit. For example, if the pollutants are in stormwater runoff that comingles with runoff from the permittees facility and impact the operation of control measures or could result in exceedance of benchmarks.

"Minimize," for example the term "minimize generation of dust" in the Practice-based Effluent Limitations requirements: Minimize is defined in the permit as reduce, and / or eliminate to the extent achievable using control measures that are technologically available and economically practical and achievable in light of best industry practice. The term minimize is defined in the permit in order to provide the permittee with a clear expectation level of the performance control measures implemented. When the term is used in the Effluent Limitations requirements (Part I.D) the applicability is limited to controlling pollutants in the discharge., For the example of "minimize generation of dust," the permittee is required to minimize the generation of dust as applicable to controlling pollutants in the discharge, and the requirement would not apply to the generation of dust in areas where the settled material would not have the potential to be exposed to stormwater runoff.

"Non-structured control measures": Structural control measures are controls that are built, and non-structural control measures tend to be more practices (such as ripping, seeding, vegetation, maintenance procedures, and other management practices) to prevent or reduce the discharge of pollutants to state waters.

Q18. Is the sample collection guidance provided by the Division (through the state of Minnesota) accurate? Is this the best, most cost effective and effective collection procedure? Is there supporting documentation showing this collection method is realistic for the State of Colorado?

This sampling and collection guidance and YouTube videos that the Division made available are not a required practice, only a recommended option. The sheet flow example guidance is one good visual example of a method to capture a sheet flow sample. It is a possible technique but the Division encourages the permittee to evaluate their own site and determine the best, most cost effective and effective collection procedure for their facility.

Q19. How does a permittee know if the pH meters used are compliant withv40 CFR Part 136 methods.

Some facilities are required to measure the pH of the discharge (refer to the permit certification for monitoring requirements). The permit requires 40 CFR methods to be carried out for analyzing water quality samples, including pH. Not all pH meters include features necessary to implement 40 CFR methods. When purchasing a pH meter, the permittee must confirm that the meter can be used to meet these methods; this information should be available from the manufacturer or vendor.

A Division or EPA inspector may verify during an inspection that the methods carried out when the analyzing pH are recorded by the permittee (i.e. the methods require calibration). Therefore, the inspector would view either how a ph sample is taken, or the permittee's records. The records could be a Standard Operating Procedure (SOP) that shows how calibration is performed and when it is performed. The procedure would discuss the 2-point calibration (one on the high side and one on the low side) required by the 40 CFR methods. The pH meter used by the permittee should come with a booklet describing the calibration methods that meet 40 CFR, or the Division recommends contacting the manufacturer if this information is not provided. The permittee should maintain data sheets with a check box for recording "instruments calibrated" or to record the actual calibration readings.

In summary, a Division or EPA inspector reviewing compliance with the methods for pH analysis would want to see procedures or the data sheets showing calibration methods, the dates performed, and who performed the calibration. The buffers that are used during the calibration do have an expiration date, so a permittee must make sure the buffers are not expired.

Q20. If a company does not discharge stormwater associated with industrial activity as a result of containing all discharge on site or preventing exposure of industrial activites and materials to stormwater runoff, is permit coverage required?

In accordance with the Colorado Water Quality Control Act and 5 CCR 1002-61 (Regulation No. 61 - Colorado Discharge Permit System Regulations), the requirement to obtain stormwater discharge permit coverage applies to stormwater discharges from specific industrial activities (determined by the Standard Industrial Classification Code), to surface waters of the State. If the industrial activity requires stormwater discharge permit coverage but does not discharge stormwater or have the potential to discharge stormwater, the owner/ operator of the facility conducting the activity may make the claim of no potential to discharge and opt out of permit coverage. The Colorado Water Quality Control Act does not establish a threshold to aid the facility owner/operator in making the determination that stormwater does not discharge from the facility (e.g., a 100-year storm event); therefore, the facility owner/ operator must make this determination. If the facility is already permitted but makes this determination, they will need to submit a Termination Form to the Water Quality Control Division (Division). This form can be found on the Division's website at www.coloradowaterpermits.com.

If the facility elects to apply for or continue stormwater discharge permit coverage but does not discharge stormwater, they may have the ability to claim "No Exposure". A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- Drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves; the permittee must fill out a no exposure form and at this time, there are very few facilities that can claim this.

- Adequately maintained vehicles used in material handling; and final products, other than products that would be mobilized in stormwater discharges (e.g., rock salt)

A No Exposure Certification must be provided for each facility qualifying for the no exposure exclusion, and must be re-submitted every five years. There is no fee associated with submitting the No Exposure Certification form. This form can be found on the Division's website referenced above. If the facility cannot claim a condition of no exposure and obtains permit coverage the permittee is required to conduct the visual monitoring and associated Benchmark, Effluent Limitation Guideline, and Water Quality Standards Monitoring and comply with all permit requirements. However, if they do not discharge stormwater, they can report "no discharge" on the Discharge Monitoring Reports and document this condition in the Storm Water Management Plan. If the scenario exists where "a small amount of stormwater runs off of drive entrance into barrow ditch adjacent to county road or curb/gutter adjacent to city road" the facility cannot claim "No Discharge". The "No Discharge" reporting convention is for no discharge, not low volume discharges.